

<p>Montana Department of Natural Resources and Conservation Water Resources Division Water Rights Bureau</p>
<p>ENVIRONMENTAL ASSESSMENT For Routine Actions with Limited Environmental Impact</p>

Part I. Proposed Action Description

Applicant/Contact name and address: RJM Asset Management, LLC
2801 26th St South
Great Falls, MT 59405-8128

1. *Type of action:* Application for Beneficial Water Use Permit No. 41QJ 30150342
2. *Water source name:* Groundwater
3. *Location affected by project:* NE1/4 Sec 19, T20N, R4E, Cascade County
4. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

The Applicant proposes to divert groundwater from the limestone of the Madison Aquifer, by means of 19 wells, from January 1 to December 31, at a combined flow rate of 380 GPM and volume of up to 18.66 AF annually. The 19 groundwater wells (points of diversion), and places of use, are proposed to be located within a 20-lot subdivision near the southeast border of Great Falls, Montana, all in the NE1/4 Section 19, T20N, R4E, Cascade County (one lot will not contain a domestic residence). The purposes of use are Multiple Domestic (19 residences at a proposed volume of 7.41 AF) and Lawn and Garden irrigation (0.34 acres per residence, or 6.54 acres total, with a proposed volume of 11.25 AF). The planned, average volume for each individual lot is 0.39 AF for in-house domestic use (from January 1 through December 31), and 0.59 AF for lawn and garden irrigation (April 1 through October 31).

5. The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311, MCA are met.
6. *Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)*

Montana Department of Environmental Quality – Web site
Montana Department of Fish, Wildlife & Parks – Web site
National Wetlands Inventory – Web site
Montana Natural Heritage Program – Web site
USDA Web Soil Survey – Web site

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The source of supply is groundwater in a limestone member of the Madison Aquifer. Groundwater in the Madison Aquifer is not characterized as periodically or chronically dewatered, and therefore there is no “dewatered” status to affect. Generally, the top of the aquifer in the area begins at approximately 400 feet below ground surface. One of the nineteen wells has already been drilled to a depth of 541 feet, and the remaining wells are anticipated to be drilled to a similar depth.

The Department has determined that the source (groundwater) is hydraulically connected to the Missouri River, and appropriations will deplete water in the Missouri River by an amount equal to the projected volume of water consumed (11.95 acre-feet). The depleted reach of the Missouri River will be from a point known as the Big Bend (south of Great Falls) to the confluence of the river with Giant Springs (northeast of Great Falls). Depletions were modeled by the Department and are projected to be 7.4 gallons per minute up to 11.95 acre-feet (AF) annually. The affected reach of the Missouri River is not identified as chronically or periodically dewatered by the Montana Department of Fish, Wildlife and Parks.

The Applicant proposes to mitigate the full depletion by executing a water service contract with the U.S. Bureau of Reclamation (USBOR). Water in the amount of 11.95 AF will be released by the USBOR from its Canyon Ferry project, through the affected reach of river, and thereby replace the same amount of the projected depletion. The plan will effectively mitigate depletions caused by the pumping well field and result in no net loss of water.

Determination: No significant impact

Water quality - *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

The Missouri River (Sheep Creek to Sun River) is listed on the 2018 Montana 303(d) list as fully supporting drinking water, agriculture and primary contact recreation, while only partially supporting aquatic life. Causes of impairment for aquatic life are sedimentation-siltation.

The Missouri River (Sun River to Rainbow Dam) is listed on the 2018 Montana 303(d) list as fully supporting agriculture and primary contact recreation, while only partially supporting aquatic life and drinking water. Probable causes of impairment for aquatic life are chromium, mercury, selenium, polychlorinated biphenyls (PCBs), physical substrate habitat alterations and

sedimentation-siltation. The only probable cause for drinking water is chromium. All probable sources are industrial in nature.

Determination: No significant impact

Groundwater - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: The project will consist of 19 wells appropriating groundwater from the Madison Aquifer. Water will be diverted and used for domestic (household) and lawn/garden purposes. The proposed amount diverted is 380 gallons per minute up to 18.66 AF annually. Water that is not consumed by in-house domestic use will return to groundwater. The total consumed volume is projected to be 11.95 AF, and therefore 11.95 AF will be reduced from the groundwater supply.

Modeling analysis by the Department shows that there is groundwater physically and legally available for appropriation in the amount requested. Modeling also predicts that drawdown in excess of 1 foot would not occur outside the boundaries of the subdivision. There are no water rights in the source aquifer that are predicted to be adversely affected by the appropriation.

The Department has also determined that hydraulically connected surface water of the Missouri River is physically available in the amount in which depletions will occur. The Applicant proposes to mitigate the total net depletion by purchasing a water service contract from the U.S. Bureau of Reclamation for an equal volume of water. The consumed volume needed to be mitigated is 11.95 AF. Based on these findings, there will be no significant impact to the groundwater aquifer or hydraulically connected surface waters.

Determination: No significant impact

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Groundwater will be diverted from the Madison Aquifer by 19 production wells with average water usage of 20 GPM and 0.98 AF per lot (0.39 AF for in-house domestic use and 0.59 AF for lawn and garden use). All wells will be equipped with submersible pumps and conveyance lines to homesites. The domestic lines will include a pressure tank. Lawn and garden sprinkler systems will be designed and installed by local contractors using standard lawn irrigation equipment, including a control box. Each well will be drilled and completed to construction standards by a licensed Montana water well contractor.

There will be no impacts to channels, riparian areas, dams or barriers. Stream flow depletions to the Missouri River will be mitigated under a water service contract. Well construction will be completed by licensed water well drillers.

Determination: No significant impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

According to the Montana Natural Heritage Program website, five animal species of concern and one special status species are listed in Township 20 North Range 4 East. The common names for the two mammal species are Hoary Bat and Grizzly Bear. The common name for the two bird species of concern are the Sprague's Pipit and Great Blue Heron. One reptile is listed, the Spiny Softshell turtle. The Bald Eagle is the special status species.

The US Fish and Wildlife Service Endangered Species Act lists six species in Cascade County. The Pallid Sturgeon is endangered, while the Canada Lynx, Red Knot, Piping Plover and Grizzly Bear are threatened. The Whitebark Pine is a proposed species.

The project (subdivision) is adjacent to the City of Great Falls and other home developments. The area may have been historically used for agricultural purposes. The development will not create a barrier to the migration or movement of fish or wildlife.

The Department's Depletion Report identified a potential maximum depletion of 7.4 gallons per minute up to 11.95 AF to the Missouri River. However, the depletion will be replaced by water released from Canyon Ferry under a water service contract, and therefore full mitigation will occur. The project will not have a significant impact on the flows of the river or the species dependent on it. Therefore, the project will not have a negative effect on species of concern or endangered and threatened species.

Determination: No significant impact

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

According to the national Wetlands Inventory (website) there are no wetlands in or near the proposed place of use or points of diversion.

Determination: No significant impact

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: Not applicable – no pond is involved.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

According to USDA Web Soil Survey, the soils within the NE1/4 Section 19, T20N, R4E are predominately Ipano-Hillon complex, with either 0-4% slopes or 4-10% slopes. These complexes consist of deep, well drained soils with low available water capacity for the Ipano component and high capacity for the Hillon composition. The complexes are classified as nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm). No permanent degradation to soil quality, stability or moisture content is anticipated.

Determination: No significant impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

The proposed place of use is currently vacant land and development of the land to residential lots should not have a substantial impact on existing grasslands. No grassland vegetation was listed as endangered or threatened in the project area. The control of noxious weeds is the responsibility of the property owner.

Determination: No significant impact

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: There will be no deterioration of air quality as a result of this appropriation, each well will use an electric motor to power the submersible pump.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: NA- Project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known local environmental plans or goals in this area, but subdivision for residential homes is consistent with future municipal growth.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.

Determination: The subdivision project is located adjacent to a municipality (Great Falls) and will not have a negative impact on recreation or wilderness activities.

HUMAN HEALTH - Assess whether the proposed project impacts on human health.

Determination: This project will have no impact on human health.

PRIVATE PROPERTY - Assess whether there is any government regulatory impacts on private property rights.

Yes___ No X If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: There are no known additional government regulatory impacts on private property rights associated with this application.

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? No Significant Impact
- (b) Local and state tax base and tax revenues? Increased Tax Revenue
- (c) Existing land uses? No Significant Impact
- (d) Quantity and distribution of employment? No Significant Impact
- (e) Distribution and density of population and housing? Increased Housing
- (f) Demands for government services? No Significant Impact
- (g) Industrial and commercial activity? No Significant Impact
- (h) Utilities? Increased Electrical Power Consumption
- (i) Transportation? No Significant Impact
- (j) Safety? No Significant Impact
- (k) Other appropriate social and economic circumstances? No Significant Impact

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts: This assessment does not indicate possible secondary impacts on the physical environment and/or the local human population.

Cumulative Impacts: This assessment does not indicate possible cumulative impacts on the physical environment and/or the local human population.

3. ***Describe any mitigation/stipulation measures:*** Mitigation of Consumptive Use with a Temporary Water Service Contract from the USDI Bureau of Reclamation
4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** An alternative analysis of the project identified a no action alternative to the construction of the subdivision. The no-action alternative would not allow the Applicant to meet the purpose of and need for the project.

PART III. Conclusion

1. ***Preferred Alternative:*** Issue a water use permit if the applicant proves the criteria in 85-2-311, MCA are met.

2 Comments and Responses

3. ***Finding:***
Based on the significance criteria evaluated in this EA, is an EIS required? NO

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant impacts have been identified; therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Doug Mann

Title: Hydrologist

Date: July 16, 2021